



STATEWIDE WASTEWATER OPERATOR TRAINING CENTER
STATE DEPARTMENT OF HEALTH
HONOLULU, HAWAII

TRAINING SESSION ANNOUNCEMENT
317 FUNDAMENTALS OF BIOLOGY AND CHEMISTRY

County: County of Maui
Location: Kihei WWRCF Classroom
91-1000 Gieger Rd, Ewa Beach
Dates: **April 16 and 17, 2014**
Times: 8:00 a.m. – 11:00 a.m.
Lunch (11:00 a.m. – 12:00 p.m.)
12:00 p.m. – 3:00 p.m.
Audience: Operators
Educational Point: 1 CEU
Instructor: Steve Parabolicoli
Prerequisite: *None*

COURSE DESCRIPTION

This training program is designed to prepare operators to understand the chemical and biological basis of various treatment processes such as chemical addition, disinfection, chemical odor control, activated sludge, biological nutrient removal, and aerobic/anaerobic digestion. Part 1 covers the fundamentals of chemistry such as stoichiometry, pH, chemical equilibrium, Henry's Law, coagulation, precipitation and neutralization. Part 2 covers the fundamentals of biology such as types of microorganisms, cell composition, molecular tools, metabolism, nutrient requirements, bacteria yield, stoichiometry, growth kinetics, and aerobic/anoxic/anaerobic reactions. biological phosphorus removal will be covered in terms of basic principles of luxury uptake of phosphorus, start-up, operation, and maintenance of different types of systems. Part 3 is a brief overview of chemical and biological treatment processes in wastewater treatment plants.

REGISTRATION (*Classes are subject to **cancellation if less than three registrations** are received by the deadline.*)

1. State and County Wastewater Treatment Plant Personnel: **TUITION: Free**
Please register as soon as possible by sending the registration form through your immediate supervisor. Supervisors will forward all registration forms to the Administrator of the Statewide Wastewater Training Center.
2. All Other Non-Municipal and Non-Wastewater Employees: **TUITION: \$110**
Please forward your registration form and check or money order payable to: State Department of Health.

Mail to:

Administrator, Statewide Wastewater Operator Training Center
State Department of Health
919 Ala Moana Blvd., Room 309
Honolulu, Hawaii 96814

Deadline*: April 9, 2014

** Registration and Payment*

EQUAL OPPORTUNITY

Any disabled person requiring special needs will be accommodated. Any disabled person requiring special assistance should contact the Administrator at 586-4294 or fax 586-4300.